

3 Way-0° 50Ω 2 to 750 MHz

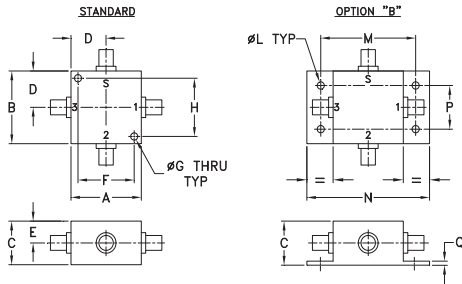
## Maximum Ratings

|                                                                 |                |
|-----------------------------------------------------------------|----------------|
| Operating Temperature                                           | -55°C to 100°C |
| Storage Temperature                                             | -55°C to 100°C |
| Power Input (as a splitter)                                     | 1W max.        |
| Internal Dissipation                                            | 0.5W max.      |
| Permanent damage may occur if any of these limits are exceeded. |                |

## Coaxial Connections

|          |   |
|----------|---|
| SUM PORT | S |
| PORT 1   | 1 |
| PORT 2   | 2 |
| PORT 3   | 3 |

## Outline Drawing



## Outline Dimensions (inch/mm)

| A     | B     | C     | D     | E    | F     | G    | H     | J  | K  | L    | M     | N     | P     | Q    | wt    |
|-------|-------|-------|-------|------|-------|------|-------|----|----|------|-------|-------|-------|------|-------|
| 1.25  | 1.25  | .75   | .63   | .38  | 1.000 | .125 | 1.000 | -- | -- | .125 | 1.688 | 2.18  | .75   | .07  | grams |
| 31.75 | 31.75 | 19.05 | 16.00 | 9.65 | 25.40 | 3.18 | 25.40 | -- | -- | 3.18 | 42.88 | 55.37 | 19.05 | 1.78 | 75.0  |

For option B with N-Type connectors, dimension "C" increases to 0.94 inches.

## Features

- wideband, 2 to 750 MHz
- low insertion loss, 0.5 dB typ.
- high isolation, 30 dB typ.
- rugged shielded case

## Applications

- VHF/UHF
- instrumentation
- communication style

Generic photo used for illustration purposes only  
CASE STYLE: J17

| Connectors           | Model        |
|----------------------|--------------|
| BNC                  | ZFSC-3-1W+   |
| SMA                  | ZFSC-3-1W-S+ |
| N-TYPE               | ZFSC-3-1W-N+ |
| BRACKET (OPTION "B") |              |

## +RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

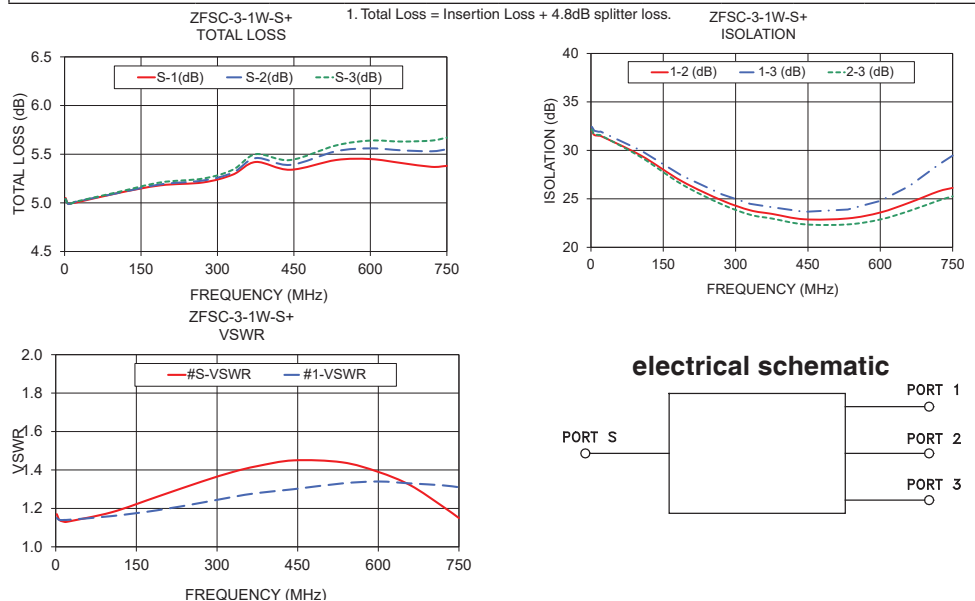
## Electrical Specifications

| FREQ. RANGE (MHz) | ISOLATION (dB) |      |      |      |      |      | INSERTION LOSS (dB) ABOVE 4.8 dB |      |      |      |      |      | PHASE UNBALANCE (Degrees) |      |     | AMPLITUDE UNBALANCE (dB) |     |      |
|-------------------|----------------|------|------|------|------|------|----------------------------------|------|------|------|------|------|---------------------------|------|-----|--------------------------|-----|------|
|                   | L              |      | M    |      | U    |      | L                                |      | M    |      | U    |      | L                         |      | M   |                          | U   |      |
| $f_L$ - $f_U$     | Typ.           | Min. | Typ. | Min. | Typ. | Min. | Typ.                             | Max. | Typ. | Max. | Typ. | Max. | L                         | Max. | M   | Max.                     | U   | Max. |
| 2-750             | 30             | 20   | 30   | 20   | 25   | 18   | 0.4                              | 0.75 | 0.5  | 1.0  | 1.0  | 1.6  | 3.0                       |      | 5.0 |                          | 7.0 |      |

L = low range [ $f_L$  to  $10 f_L$ ] M = mid range [ $10 f_L$  to  $f_U/2$ ] U = upper range [ $f_U/2$  to  $f_U$ ]

## Typical Performance Data

| Freq. (MHz) | Total Loss <sup>1</sup> (dB) |      |      | Amp. Unbal. (dB) | Isolation (dB) |       |       | Phase Unbal. (deg.) | VSWR |      |      |      |
|-------------|------------------------------|------|------|------------------|----------------|-------|-------|---------------------|------|------|------|------|
|             | S-1                          | S-2  | S-3  |                  | 1-2            | 1-3   | 2-3   |                     | S    | 1    | 2    | 3    |
| 2.00        | 5.05                         | 5.04 | 5.04 | 0.00             | 31.97          | 32.43 | 32.13 | 0.05                | 1.17 | 1.15 | 1.15 | 1.15 |
| 6.80        | 4.99                         | 4.99 | 4.99 | 0.00             | 31.59          | 32.02 | 31.67 | 0.02                | 1.14 | 1.14 | 1.15 | 1.14 |
| 16.40       | 5.00                         | 5.00 | 5.00 | 0.00             | 31.51          | 31.92 | 31.59 | 0.03                | 1.13 | 1.14 | 1.15 | 1.14 |
| 20.00       | 5.00                         | 5.01 | 5.01 | 0.01             | 31.49          | 31.94 | 31.56 | 0.03                | 1.13 | 1.14 | 1.15 | 1.14 |
| 104.00      | 5.10                         | 5.10 | 5.11 | 0.01             | 29.46          | 29.98 | 29.29 | 0.06                | 1.18 | 1.16 | 1.16 | 1.16 |
| 188.00      | 5.18                         | 5.19 | 5.21 | 0.02             | 26.83          | 27.40 | 26.51 | 0.11                | 1.26 | 1.19 | 1.20 | 1.19 |
| 272.00      | 5.21                         | 5.23 | 5.25 | 0.04             | 24.83          | 25.45 | 24.42 | 0.10                | 1.34 | 1.23 | 1.24 | 1.23 |
| 330.00      | 5.29                         | 5.31 | 5.34 | 0.05             | 23.82          | 24.48 | 23.36 | 0.09                | 1.39 | 1.26 | 1.27 | 1.26 |
| 375.00      | 5.42                         | 5.46 | 5.50 | 0.08             | 23.45          | 24.14 | 22.97 | 0.15                | 1.42 | 1.28 | 1.29 | 1.28 |
| 442.50      | 5.34                         | 5.39 | 5.44 | 0.10             | 22.89          | 23.66 | 22.37 | 0.13                | 1.45 | 1.30 | 1.32 | 1.31 |
| 532.50      | 5.44                         | 5.53 | 5.59 | 0.15             | 22.98          | 23.90 | 22.36 | 0.11                | 1.44 | 1.33 | 1.35 | 1.33 |
| 600.00      | 5.45                         | 5.56 | 5.64 | 0.19             | 23.59          | 24.79 | 22.87 | 0.16                | 1.39 | 1.34 | 1.37 | 1.35 |
| 660.00      | 5.41                         | 5.54 | 5.63 | 0.22             | 24.60          | 26.31 | 23.75 | 0.20                | 1.32 | 1.33 | 1.38 | 1.36 |
| 720.00      | 5.37                         | 5.53 | 5.64 | 0.27             | 25.76          | 28.49 | 24.81 | 0.37                | 1.21 | 1.32 | 1.38 | 1.35 |
| 750.00      | 5.38                         | 5.55 | 5.67 | 0.29             | 26.13          | 29.46 | 25.26 | 0.46                | 1.15 | 1.31 | 1.37 | 1.34 |



## Notes

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